

Work Order ID 78236

January-02-12 4:00:10 PM

78236

Page 1

Item ID: D2573 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle, Aft Out 205
 Start Date: 02/01/2012 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 20/01/2012 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: M.L.J Date: 12/01/02 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2573	Rev E								

100 HAAS CNC VERTICAL MACHINING #1 0.00 and B.A 12/01/24 12 10
100
 HAAS I
 HAAS CNC vertical machine #1

Memo
 Program Batch No. 78236 Double check by: 12 1-Machine Step
 No 1 per Folio FA051 and inspect per attached Dimension Sheets 2-Machine
 Step No 2 per Folio FA051 and inspect per attached Dimension Sheets3-
 Machine Step No 3 per Folio FA051 and insp

110 CONVENTIONAL MILLING MACHINE 0.00 and B.A 12/01/25 12 10
110
 Mill Conv
 Conventional Milling Machine

Memo
 Machine keyway as per dwg D2573 & D2574

120 QC2- Inspect parts off machine FAI/FAIB 0.00 and B.A 12/01/25 12 10
120
 QC
 Quality Control

Memo 0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 78236

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78236

Page 2

Item ID: D2573 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Saddle, Aft Out 205
 Start Date: 02/01/2012 Start Qty: 12.00 ***12*** Cust Item ID:
 Required Date: 20/01/2012 Req'd Qty: 12.00 ***12*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130	QC8- Inspect parts - second check	0.00	JL	12-01-31		(12)			
130									
QC	Memo	0.00							
Quality Control									

140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.00							
Hand Finishing									

150	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
150									
Powdercoat	Memo	0.00							
Powder Coating									

START TIME: 2:30 FINISH TIME: 3:00 OVEN TEMPERATURE:

MUA480

3200F

3:00

12 x 8 m / 12/01/31

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Work Order ID 78236***78236***

Page 3

January-02-12 4:00:10 PM

Item ID: D2573

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle, Aft Out 205

Start Date: 02/01/2012 Start Qty: 12.00

12

Cust Item ID:

Required Date: 20/01/2012 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC3- Inspect Part Finish

0.00

160

QC

Memo

0.00

Quality Control

12 12-1-31.

170

Identify as per dwg & Stock Location: 434

0.00

170

Packaging

Memo

0.00

Packaging

12/1/31 50 (12)

180

QC21- Final Inspection - Work Order Release

0.00

180

QC

Memo

0.00

Quality Control

12/2/11

ME
12-02-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January-02-12 4:00:13 PM

Page 1

Work Order ID: 78236

78236

Parent Item: D2573

D2573

Parent Item Name: Saddle, Aft Out 205

Start Date: 02/01/2012

Required Date: 20/01/2012

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: 1 As Per RevE 06-01-27 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-007		Manufactured	No			100	Each	46.0000	1	12			

D6101-007

Saddle Billet

**

B.A 12/01/24

Location

Loc Qty

Loc Code

MAT045

46

70680

3

→ 76839

43

12.0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	78236
Description: Saddle, Aft Outboard	Part Number:	D2573
Inspection Dwg: D2573 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443		0.438	0.438	.438	.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.001	8.001	8.002	8.002		
F	0.490	0.510		0.502	.504	.504	.504		
G	0.257	0.262		0.259	0.259	.259	.259		
H	0.375	0.380		0.376	0.376	.377	.377		
I	0.490	0.510		0.502	.500	.494	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		0.569	.568	.567	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		0.127	.127	.127	.127		
Q	0.115	0.135		0.135	0.135	.135	.135		
R	0.240	0.260		0.253	.257	.257	.257		
S	0.115	0.135		0.124	.127	.128	.127		
T	0.178	0.198		0.188	0.188	.188	.188		
U	3.210	3.250		3.230	3.225	3.225	3.225		
V	0.230	0.250		0.239	.236	.238	.237		
W	0.115	0.135		0.125	.129	.129	.130		
X	0.308	0.313		0.310	.308	.309	.309		
Y	0.760	0.765		0.765	.765	.764	.764		
Z	0.352	0.372		0.367	.358	.358	.358		
AA	0.470	0.530		0.500	0.500	.500	.500		
AB	0.615	0.635		0.622	.621	.622	.622		
AC	0.053	0.073		0.063	0.063	.063	.063		
AD	0.240	0.260		0.247	.245	.247	.247		
AE	1.500	1.520		1.5134	1.515	1.5124	1.5135		
AF	0.115	0.135		0.135	0.135	.130	.132		
AG	0.240	0.280		0.245	.275	.275	.270		
AH	0.240	0.260		0.249	.244	.248	.247		
AI	2.000	2.020		2.0016	2.005	2.0023	2.0037		
AJ	0.023	0.043		0.033	0.033	.033	.037		
Accept/Reject									

Measured by:	MA
Date:	12/01/25

Audited by:	JL
Date:	12-01-31

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 78236
Description: Saddle, Aft Outboard	Part Number: D2573
Inspection Dwg: D2573 Rev. E	Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				15	16	17	18		
A	0.438	0.443		.438	.438	.438	.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.003	8.003	8.003	8.003		
F	0.490	0.510		.500	.500	.500	.500		
G	0.257	0.262		.259	.259	.257	.257		
H	0.375	0.380		.377	.377	.375	.375		
I	0.490	0.510		.500	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.568	.568	.568	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		.127	.127	.126	.126		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.251	.253	.253	.251		
S	0.115	0.135		.129	.129	.129	.129		
T	0.178	0.198		.188	.188	.188	.188		
U	3.210	3.250		3.225	3.230	3.230	3.230		
V	0.230	0.250		.237	.246	.246	.241		
W	0.115	0.135		.128	.128	.128	.127		
X	0.308	0.313		.308	.308	.308	.308		
Y	0.760	0.765		.764	.764	.764	.764		
Z	0.352	0.372		.370	.370	.367	.367		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.622	.622	.622	.622		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.246	.246	.246	.246		
AE	1.500	1.520		1.514	1.512	1.512	1.513		
AF	0.115	0.135		.130	.130	.130	.130		
AG	0.240	0.280		.275	.275	.275	.275		
AH	0.240	0.260		.247	.253	.253	.247		
AI	2.000	2.020		2.0046	2.002	2.002	2.002		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

Measured by: <i>AK 1/28</i>
Date: <i>12/01/21</i>

Audited by: <i>JK</i>
Date: <i>12-01-31</i>

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>

DART AEROSPACE LTD	Work Order: 78236
Description: Saddle, Aft Outboard	Part Number: D2573
Inspection Dwg: D2573 Rev. E	Page 1 of 1

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				1	2	3	4		
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B	1.745	1.755		1.750	1.750	1.750	1.750		
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D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.003	8.003	8.003	8.003		
F	0.490	0.510		.500	.500	.500	.500		
G	0.257	0.262		.259	.259	.259	.259		
H	0.375	0.380		.377	.377	.377	.377		
I	0.490	0.510		.500	.500	.500	.500		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.568	.568	.568	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.365	1.375		1.370	1.370	1.370	1.370		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	4.119	4.129		4.124	4.124	4.124	4.124		
P	0.115	0.135		.127	.127	.127	.127		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.251	.251	.251	.251		
S	0.115	0.135		.129	.129	.129	.129		
T	0.178	0.198		.188	.188	.188	.188		
U	3.210	3.250		3.225	3.225	3.225	3.225		
V	0.230	0.250		.237	.237	.237	.237		
W	0.115	0.135		.128	.128	.128	.128		
X	0.308	0.313		.308	.308	.308	.308		
Y	0.760	0.765		.764	.764	.764	.764		
Z	0.352	0.372		.367	.367	.367	.367		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.622	.622	.622	.622		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.246	.246	.246	.246		
AE	1.500	1.520		1.574	1.574	1.574	1.574		
AF	0.115	0.135		.130	.130	.130	.130		
AG	0.240	0.280		.275	.275	.275	.275		
AH	0.240	0.260		.247	.247	.247	.247		
AI	2.000	2.020		2.002	2.002	2.002	2.002		
AJ	0.023	0.043		.033	.033	.033	.033		
Accept/Reject									

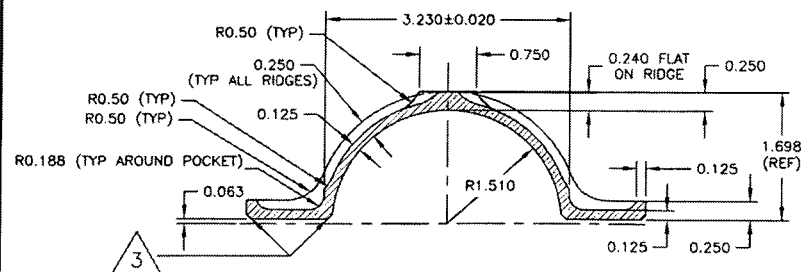
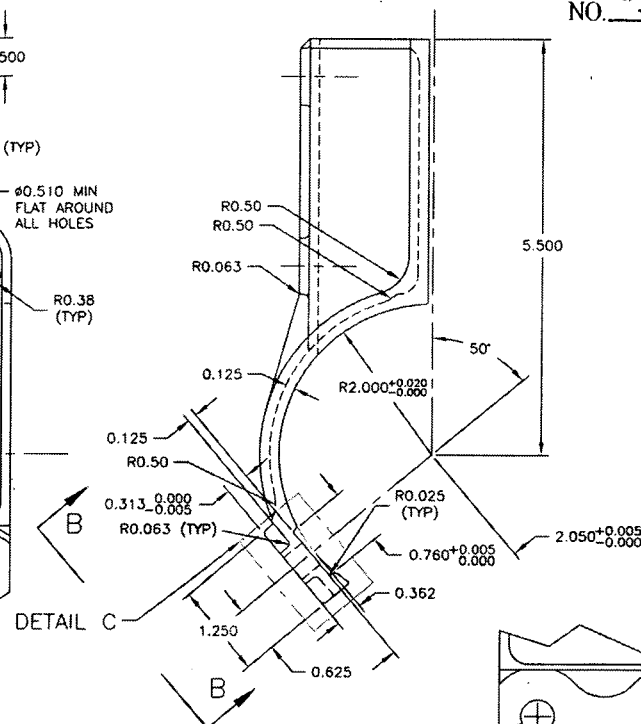
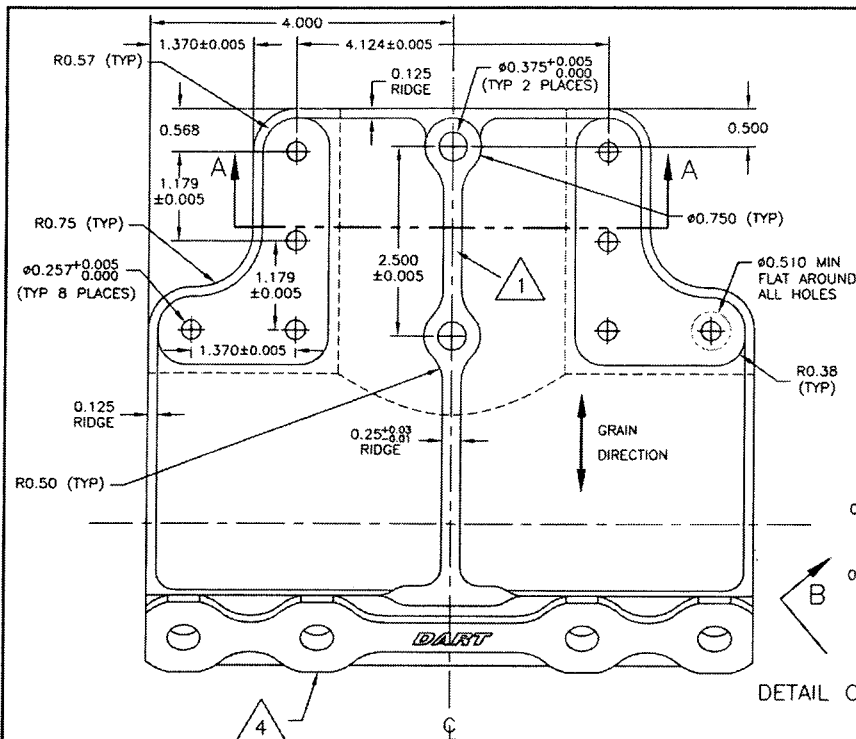
Measured by:	<i>cmf</i>
Date:	12/01/31

Audited by:	<i>JK</i>
Date:	12-01-31

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>

SECRET
REF ID: A66666
ENGINEERING
UNCONTROLLED
SUBJECT TO APPROVAL

WITHOUT WORK
NO. 78236 M.L.S. 12/01/02
RELEASED 05.12.06



SECTION A-A

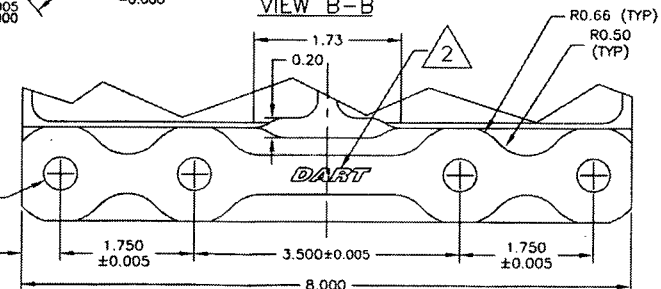
DETAIL C
SCALE 4:3

NOTES

MATERIAL: 7075-T7351 (QQ-A-250/12)
(REF DART SPEC. D6102-001)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
BREAK ALL SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- 1 ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010
- 2 ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125
- 3 CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)
- 4 CHAMFER 0.063" x 45° ALL AROUND
- 5 CHAMFER 0.033" x 45° (SEE DETAIL C) E

VIEW B-B



E	05.07.13	ADD CHAMFER ON RIDGE NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCOMP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE

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DESIGN	DS	DRAWN BY	PH	DART	DART AEROSPACE LTD. NAIRNSBURGH, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO.	D2573
DATE	05.07.13	TITLE	OUTER AFT SADDLE	REV. E	SHEET 1 OF 1
		SCALE	2:3		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries